

AMENDMENTS TO THE CLAIMS

Cancel Claim 1-5, 7-11 and 13 without prejudice. Please accept amended Claims 6 and 12 as follows:

1-5. (Cancelled)

6. (Currently Amended) A method of answering an XML query, comprising:

receiving an XML query;

transforming the XML query into a structure-encoded sequence;

searching a virtual suffix tree (ViST) structure using the structure-encoded sequence and

returning one or more document IDs,

wherein searching a ViST structure using the structure encoded sequence, comprises:

(a). assuming the query sequence is $\langle q_{\text{sub.--1}}, q_{\text{sub.--2}}, \dots, q_n \rangle$;

(b) assigning. $i=1, \text{begin}=0, \text{end}=\text{infinity}$;

(c) searching a D-Ancestor B+Tree using key q_i , which returns an S-Ancestor B+Tree;

and

(d) performing a range search (begin,end) on the S-Ancestor B+Tree, wherein performing

the range search comprises:

(e) returning a set of ranges $(x_{\text{sub.--1}}, y_{\text{sub.--1}}), \dots, (x_n, y_n)$;

(f) for each (x_i, y_i) doing (g) and (h);

(g) if $(i=n)$ then performing a range query (x_i, y_i) on the doc-ID index and

returning one or more document IDs;

(h) if $(i < n)$ then assigning $i=i+1$; $\text{begin}=x_i$, $\text{end}=y_i$;

going to (c).

7-11. (Cancelled)

12. (Currently Amended) A machine-readable medium having instructions stored thereon for execution by a processor to perform a method answering an XML query, comprising the steps of:

receiving an XML query;

transforming the XML query into a structure-encoded sequence;

searching a virtual suffix tree (ViST) structure using the structure-encoded sequence and returning one or more document IDs,

wherein searching a ViST structure using the structure encoded sequence, comprises:

(a). assuming the query sequence is $\langle q_{sub--1}, q_{sub--2}, \dots, q_n \rangle$;

(b) assigning. $i=1, begin=0, end=infinity$;

(c) searching a D-Ancestor B+Tree using key q_i , which returns an S-Ancestor B+Tree;

and

(d) performing a range search (begin,end) on the S-Ancestor B+Tree, wherein performing the range search comprises:

(e) returning a set of ranges $(x_{sub--1}, y_{sub--1}), \dots, (x_n, y_n)$;

(f) for each (x_i, y_i) doing (g) and (h);

(g) if $(i=n)$ then performing a range query (x_i, y_i) on the doc-ID index and

returning one or more document IDs;

(h) if $(i < n)$ then assigning $i=i+1$; $begin=x_i$, $end=y_i$;

going to (c).

13. (Cancelled)